APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,977	06/20/2003	Ranjan K. Sen	221208	7153

			EXAMINER
45373	7590	07/25/2006	SEYE, ABDOU K

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ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/600,977	SEN, RANJAN K.
	Examiner	Art Unit	
	Abdou Karim Seye	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 June 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-34</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>03/08/2004</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. This is the initial office action based on the application filed on June 20, 2003.

Claims 1-34 are currently pending and have been considered below.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 27-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a signal directly or indirectly by claiming a medium and the specification recites evidence where the computer readable medium is defined as a *"wave"* (such as a carrier wave). Thus, the claims are directed to a form of energy that, at present, the office considers to be non-statutory subject matter.

Appropriate change is required.

Claim Rejections - 35 USC § 102

3.The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section

122(b), by another filed in the United States before the invention by the applicant for patent or (2)

a patent granted on an application for patent by another filed in the United States before the

invention by the applicant for patent, except that an international application filed under the treaty

defined in section 351(a) shall have the effects for purposes of this subsection of an application

filed in the United States only if the international application designated the United States and

was published under Article 21(2) of such treaty in the English language.

3. Claims 1-34 are rejected under 35 U.S.C. 102 (e) as being anticipated by

Shiomi et al. (20060095919).

    Claim 1: <u>Shiomi</u> discloses a method for tracking kernel resource usage

comprising the steps of:

        a. Generating a tag to charge a process allocated with kernel

resources (fig. 15/33a paragraph 161,162,163; fig.15/34a, paragraph

154,157);

        b. Determining whether the process is a kernel process or a user

process (fig. 15/33a,33b, paragraph 161, 162, 163); and

        c. Flagging the tag to indicate whether the process is a kernel

process or a user process based upon the determination step (fig. 16,

paragraph 134, fig. 19, paragraph 163).

    Claim 2: <u>Shiomi</u> discloses a method for tracking kernel resource usage

as in claim 1 above and further discloses that step of generating a tag further

comprises the steps of:

        a. Determining whether a request for kernel resources is passed

from an intermediate function using a worker thread(fig. 15, paragraph 133);

      b. Finding at least one link between the worker thread and the

process (fig. 16, paragraph 134); and

      c. Identifying the process that originated the request according to

the found link between the worker thread and the process (fig.16, paragraph

134).

      Claim 3: <u>Shiomi</u> discloses a method for tracking kernel resource usage

as in claim 1 above and further discloses that the step of flagging comprises

the steps of:

      a. Generating a tag value to identify the kernel resources allocated

to a kernel process (fig. 27, paragraph 186); and

      b. Saving a driver identification to the tag value (fig. 27, paragraph

186).

      Claim 4: <u>Shiomi</u> discloses a method for tracking kernel resource usage as

in claim 3 above and further discloses that the tag value with the driver

identification is saved in a first word of the tag (fig. 27, paragraph 187).

      Claim 5: <u>Shiomi</u> discloses a method for tracking kernel resource usage as

in claim 1 above and further discloses that step of flagging the tag further

comprises the steps of:

      a. Generating a tag value to identify kernel resources allocated to a

user process (fig. 27, paragraph 186, 187);

      b. Saving a type of kernel resources allocated to the tag (fig. 27,

paragraph 186); and

c. Saving a user process identifier to the tag to identify the process (fig. 27, paragraph 186).

Claim 6: <u>Shiomi</u> discloses a method for tracking kernel resource usage as in claim 5 above and further discloses that the tag value and the type of kernel resources are saved in a first word of the tag, and the user process identifier is saved in a second word of the tag (fig. 12, paragraph 117).

Claim 7: <u>Shiomi</u> discloses a method for tracking kernel resource usage as in claim 1 above and further discloses that the step of flagging the tag further comprises the steps of:

a. Generating a tag value to identify kernel resources allocated to a user process (fig. 12, paragraph 117);

b. Saving the tag value to a first word of the tag (fig. 12, paragraph 117); and

c. Saving a user process identifier to identify the process to second word of the tag (fig. 12, paragraph 117).

Claim 8: <u>Shiomi</u> discloses a method for tracking kernel resource usage comprising the steps of:

a. Generating a tag to charge a process allocated with kernel resources (fig. 15/33a paragraph 161,162,163; fig. 15/34a, paragraph 154,157);

b. Determining whether the process is a first predefined process or a second predefined process15/33a, 33b, paragraph 161, 162, 163); and

c. Saving an identifier to the tag to identify whether the process is a first predefined process or a second predefined process based upon the determination step (fig.16, paragraph 134; fig. 19, paragraph 163).

Claim 9: <u>Shiomi</u> discloses a method for tracking kernel resource usage as in claim 8 above and further discloses that the method comprises the steps of:

a. Saving a process identifier to identify the process allocated with the kernel resources (fig. 27, paragraph 186); and

b. Saving a type of kernel resources allocated to the process (fig. 27, paragraph 186).

Claim 10: <u>Shiomi</u> discloses a method for tracking kernel resource usage as in claim 8 above and further discloses that the step of generating a tag further comprises the steps of:

a. Determining whether a request for kernel resources is passed from an intermediate function using a worker thread (fig. 15, paragraph 133);

b. Finding at least one link between the worker thread and the process(fig.16, paragraph 134); and

c. Identifying the process that originated the request according to the found link between the worker thread and the process(fig.16, paragraph 134).

Claim 11: <u>Shiomi</u> discloses a method for tracking kernel resource usage as in claim 8 above and further discloses that the step of saving an identifier further comprises the step of flagging the tag as the first predefined process or

the second predefined process according to the determination step (fig. 16,

paragraph 134, fig. 19, paragraph 163).

Claim 12: <u>Shiomi</u> discloses a method for tracking kernel resource usage

as in claim 8 above and further discloses that the first and second predefined

processes relate to processes from kernel level or user level in an operating

system (fig.15/44, paragraph 125)

Claim13: Shiomi discloses a method for tracking kernel resource usage as

in claim 8 above and further discloses that the first and second predefined

processes relate to processes used by users, a group of users, or accounts of

the users in a network system; applications (fig. 15, paragraph 83).

Claim 14: <u>Shiomi</u> discloses a method for tracking kernel resource usage

comprising the steps of:

a. Generating a tag to charge a process called from user level of

an operation system allocated with kernel resources (fig. 15/33a, paragraph

161,162, 163);

b. Saving a tag value to the tag to identify the kernel resources

allocated to the user process (fig. 16, paragraph 134; fig. 19, paragraph 163);

and

c. Saving a user process identifier to the tag to identify the user

process (fig. 27, paragraph 186).

Claim 15: <u>Shiomi</u> discloses a method for tracking kernel resource usage

as in claim 14 above and further discloses that the tag value is saved in a first

word of the tag, and the user process identifier is saved in a second word of the tag (fig.12, paragraph 117).

Claim 16: Shiomi discloses a method for tracking kernel resource usage as in claim 14 above and further discloses the step of flagging the tag as a process called from the user level of an operating system (fig. 16, paragraph 134; fig.19, paragraph 163).

Claim 17: Shiomi discloses a method for tracking kernel resource usage as in claim 14 above and further discloses that the step of saving a tag value comprises the steps of:

a. Determining whether a request for kernel resources is passed from an intermediate function using a worker thread (fig.15, paragraph 133);

b. Finding at least one link between the worker thread and the process (fig.16, paragraph 134); and

c. Identifying the process that originated the request according to the found link between the worker thread and the process (fig.16, paragraph 134).

Claim 18: Shiomi discloses a method for tracking kernel resource usage as in claim 14 above and further discloses the step of saving a type of kernel resources allocated to the user process to the tag (fig.12 paragraph 117).

Claim 19: Shiomi discloses a method for tracking kernel resource usage as in claim 14 above and further discloses that the step of saving a user process identifier comprises the steps of:

a. Extending the tag with a second word (fig.12, paragraph 117);

and

b. Saving the user process identifier to the second word of the tag
(fig. 12 paragraph 117).

Claim 20: <u>Shiomi</u> discloses a method for tracking kernel resource usage
as in claim 19 above and further discloses the step of saving the tag value to a
first word of the tag (fig. 5, paragraph 96).

Claim 21: <u>Shiomi</u> discloses a method for tracking kernel resources
allocated to kernel and user processes indicated by a plurality of tags, the
method comprising the steps of:

a. Identifying an amount of kernel resources allocated to a process
indicated by a selected tag (fig. 29, paragraph 200);

b. Saving an association of the identified amount of kernel
resources allocated with the process to a file (fig. 29, paragraph 200);

c. Identifying a type of the kernel resources allocated to the
process indicated by the selected tag (fig. 29, paragraph 200); and

d. Saving an association of the identified type of the kernel
resources allocated with the process to the file(fig. 29, paragraph 200).

Claim 22: <u>Shiomi</u> discloses a method for tracking kernel resources
allocated to kernel and user processes indicated by a plurality of tags as in claim
21 above and further discloses that the steps of:

a. Selecting a tag from the plurality of tags (fig. 18, paragraph

143); and

b. Saving the selected tag to the file (fig. 18, paragraph 143).

Claim 23: Shiomi discloses a method for tracking kernel resources

allocated to kernel and user processes indicated by a plurality of tags as in claim

21 above and further discloses the steps of:

a. Determining whether there are any more tags from the plurality of tags

(fig. 18, paragraph 143); and

b. Repeating the method for any other tags based upon the determination

step (fig. 18, paragraph 143).

Claim 24: Shiomi discloses a method for tracking kernel resources

allocated to kernel and user processes indicated by a plurality of tags as in claim

21 above and further discloses the step of identifying the type of kernel resources

comprises the steps of:

a. Determining whether the process is called from the user level

(fig.15/33a, paragraph 161,162, 163); and

b. Performing the step of identifying the type of kernel resources

when the process is called from the user level (fig. 15/33a, paragraph 161,162,

163).

Claim 25: Shiomi discloses a method for managing kernel resource usage

comprising the steps of:

a. Reading a usage policy, wherein the usage policy includes data

relating to threshold limits according to processes and kernel resource type (fig. 29/105, paragraph 208);

b. Searching a file to determine an amount of kernel resources used by each process (fig. 30, paragraph 209);

c. Determining whether the amount of kernel resource usage exceeds the threshold limits according to the user policy (fig. 30, paragraph 209); and

d. Taking an action according to the usage policy when the amount of kernel resource usage is over the threshold limits (fig. 30, paragraph 210, 211).

Claim 26: Shiomi discloses a method for managing kernel resource usage as in claim 25 above and further discloses the steps of:

a. Determining whether the process should be aborted according to the usage policy (fig. 30, paragraph 211);

b. Aborting the process according to the determination step (fig. 30 paragraph 211); and

c. Updating the file to reflect the aborted process (fig. 30, paragraph 211).

Claim 27: Shiomi discloses a computer-readable medium having stored thereon a data structure, comprising:

a. A first field containing a user process identifier to identify a user process allocated with kernel resources (fig. 27, paragraph 187) ; and

b. A second field containing a value to identify kernel resources allocated to the user process (fig. 27, paragraph 187).

Claim 28: <u>Shiomi</u> discloses a computer-readable medium having stored thereon a data structure as in claim 27 above and further discloses a third field containing a flag that indicates the user process as a process called from user level (fig. 25, paragraph 174).

Claim 29: <u>Shiomi</u> discloses a computer-readable medium having stored thereon a data structure as in claim 27 above and further discloses that the first field is a first long word of a tag, and the second field is a second long word of the tag (fig. 12, paragraph 117).

Claim 30: <u>Shiomi</u> discloses a computer-readable medium having computer-executable instructions for performing steps comprising:

a. Generating a tag to charge a process allocated with kernel resources (fig. 15/34a, paragraph 154,157);

b. Determining whether the process is a kernel process or a user process (fig. 15/33a,33b, paragraph 161, 162, 163); and

c. Flagging the tag to indicate whether the process is a kernel process or a user process based upon the determination step (fig. 16, paragraph 134; fig.19, paragraph 163).

Claim 31: <u>Shiomi</u> discloses a computer-readable medium having computer-executable instructions for performing steps comprising:

a. Generating a tag to charge a process allocated with kernel

resources (fig.15/33a, paragraph 161, 162, 163; fig. 15/34a, paragraph 154,

157);

      b. Determining whether the process is a first predefined process or

a second predefined process (fig.15/33a,33b, paragraph 161, 162, 163); and

      c. Saving an identifier to the tag to identify whether the process is

a first predefined process or a second predefined process based upon the

determination step (fig.16, paragraph 134; fig.19, paragraph 163).

      Claim 32: Shiomi discloses a computer-readable medium having

computer-executable instructions for performing steps comprising:

      a. Generating a tag to charge a process called from user level of

an operating system allocated with kernel resources (fig. 15/33a, paragraph 161,

162, 163);

      b. Saving a tag value to the tag to identify the kernel resources

allocated to the user process (fig. 15/33c, paragraph 161, 162, 163); and

      c. Saving a user process identifier to the tag to identify the user

process (fig. 16, paragraph 134).

      Claim 33: Shiomi discloses a computer-readable medium having

computer-executable instructions for performing steps comprising:

      a. Identifying an amount of kernel resources allocated to a process

indicated by a selected tag (fig. 32, paragraph 215);

      b. Saving an association of the identified amount of kernel

resources allocated with the process to a file (fig. 32, paragraph 215) ;

c. Identifying a type of the kernel resources allocated to the

process (fig 32/105, paragraph 208); and

d. Saving an association of the identified type of the kernel

resources allocated.with the process to the file (fig. 32, paragraph 208).

Claim 34: Shiomi discloses a computer-readable medium having

computer-executable instructions for performing steps comprising:

a. Reading a usage policy, wherein the usage policy includes data

relating to threshold limits according to processes and kernel resource type (fig.

29/105, paragraph 208);

b. Searching a file to determine an amount of kernel resources

used by each process (fig. 30, paragraph 209).

c. Determining whether the amount of kernel resource usage

exceeds the threshold limits according to the user policy (fig. 30 paragraph 209);

and

d. Taking an action according to the usage policy when the

amount of kernel resource usage is over the threshold limits (fig. 30, paragraph

210, 211).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent

to applicant's disclosure.

Foote (7028298) discloses a method for managing resource usage of

a particular resource by a set of releated code.

Draves (5802590) discloses a method for providing secure access to computer resources.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Abdou Seye whose telephone number is (571) 270-1062. The examiner can normally be reached Monday through Friday from 7:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James W. Myhre whose telephone number is (571) 272-6722. The fax phone number for Formal or Official faxes to Technology Center 3600 is (571) 273-8300. Draft or Informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-3600.

AKS
July 18, 2006

James W. Myhre
Supervisory Patent Examiner